

ABSTRACT OF THE DISCLOSURE

A semiconductor device manufacturing system is provided in which chip position information is read without removing resin from a package so that the cause of a failure can be quickly identified and removed and the yield of chips can be rapidly improved. A replacement address reading device reads redundancy addresses from a semiconductor device which is determined as faulty in a test performed after the semiconductor device has been sealed into a package. A chip position analyzing device estimates, from the combination of these redundancy addresses, a lot number, a wafer number and a chip number of the faulty semiconductor device. A failure distribution mapping device maps the distribution of faulty chips in each wafer in the lot based on these numbers thus obtained. A failure cause determining device identifies which manufacturing device or processing step has caused the failures in the wafer process based on the above distribution.